Alternative Area 2 Excavation Depths and Volumes

West Lake Site

September 29, 2014

OSRTI input

Alternative Area 2 Excavation Depths and Volumes

The large uncertainty related to the location and volume of RIM and the nature of the waste matrix could negatively impact the alternatives evaluation process including how the cost and feasibility of various implementation options have been evaluated.

The work plan currently focuses on two boring locations with questionable reliability. This analysis should be included.

Past studies have acknowledged a large degree of uncertainty associated with the volume estimates and locations of RIM based a number of factors such as the accuracy of the existing site topographic mapping (e.g., with a tolerance of approximately one foot); studies with different data quality objectives that focused on the general nature and extent of occurrences of RIM; and sparse data density (e.g. one soil boring per acre). We recommend a quantitative assessment of the uncertainty using geostatistical tools considering possible conceptual hypothesis on the distribution of RIM (e.g., layered orientation versus vertical mixing).

We also recommend incorporating additional information from recent and future investigations (e.g., related to the barrier alignment) and the discovery of additional RIM locations. Characterization of waste material from these field investigations and historical investigations (if available) should include determination of the fraction of “putrescible waste” and other characteristics that may inform analysis of treatment, separation and excavation options.